

The following is a summary of the work performed in relation to the Underground Storage Tank (UST) Field located at 1700-1712 McCarter Highway (Block 614 Lot 64) in Newark, NJ (Site).

The UST field was evaluated by BSG-PMK Field personnel on October 19, 2009. The evaluation was performed using conventional excavation equipment (i.e. track excavator). The locations of the USTs were identified using a historic as-built plan of the Site. The as-built drawing was provided by the City of Newark (Client).

The excavation was initiated on the west side of the UST field with a single test pit. The excavation was advanced to a depth approximately 18 inches below surface grade when the top of the first UST was encountered (UST #10). The location and orientation of each of the USTs are presented on Plate 1.

Below are bulleted findings during the exploratory test pit/trenching operations.

- A total of ten (10) USTs were identified on the North side of the structure located on Block 614 Lot 63. This is consistent with the as-built drawings provided by the Client.
- Each UST was a riveted steel UST approximately ¼ inch in thickness. Measurements collected indicate that each UST has a capacity approximately 12,000-Gallons, measuring 31.5 feet long and having a diameter of approximately 8.0 feet.
- Since the main objective during these field operations were to identify the number, approximate size, and content of the USTs individual measurements were not collected for the length of each UST. However field observations of each UST indicated that all ten (10) USTs were of similar construction (all cut access points were in line, the ends of USTs matched, all diameters were the same, etc.).
- “Hold-down” straps were identified on four (4) of the ten USTs
- Eight (8) of the ten (10) USTs appeared to have been historically cut and accessed prior to the October 19, 2009 field operations. This was evident when USTs #1- #7 and UST #9 were observed to have had an access way cut in the top of each UST. Each of these “access” points were covered by a steel plate simply laid over the access and buried.
- USTs #8 had a steel man-way which was sealed with a poured concrete block measuring approximate 4.0 feet x 4.0 feet x 1.0 foot. The concrete block was removed for access
- UST #10 was accessed through a man-way bolted to the UST. The man-way was also the location of a brass pump housing for an internal UST pump. The man-way was unbolted to gain access to UST #10.
- UST #4 was the only UST that did not have any liquid material present.
- Various pipe runs and piping configurations were observed; however the terminus of piping runs, directionality, and their continuity could not be determined due to abrupt disconnections.
- Vent pipe verses fill ports could not be confirmed.

- The following is a list of each tank and its observed contents.

Tank ID Matches UST # on Plate 1	UST Contents observed
UST #1	Brownish-green liquid, very strong odor (sweet gasoline smell), low PID readings (3.0-6.0 ppm)
UST #2	Black-brown to Black-green High solvent odor (insecticide) (similar to samples collected from basement of structure located on Block 614 Lot 63), low PID readings (3.0-6.0 ppm)
UST #3	Clear liquid solvent odor- when liquid contacted labels it removed writing, low PID readings (3.0-6.0 ppm)
UST #4	Contained some soil - no liquid
UST #5	Clear liquid with a strong solvent odor, low PID readings (3.0-6.0 ppm)
UST #6	Black liquid viscosity lower than water- odor similar to mineral spirits/thinner, low PID readings (5.0-6.0 ppm), lab reported multiphase contents
UST #7	Greenish black liquid - odor similar to mineral spirits/thinner, low PID readings (3.0-6.0 ppm) lab reported multiphase contents
UST #8	Thick gummy sludge with clear to cloudy liquid, - odor similar to Testors® cement glue, PID 100-112 ppm
UST #9	Black Liquid with a mixed septic/turpentine odor, low PID readings (1.0-8.0 ppm)
UST #10	Clear upper layer and cloudy/whitish lower layer(Multiphase liquid) low PID readings (3.0-6.0 ppm)

- All UST access points were recovered using the steel plate, Concrete slab (UST #8), Man-way cover (UST #10), and adhered in place using an expandable foam sealer. Excavated top soils were placed back over each area of excavation and bucket compacted.
- All UST contents were analyzed for PP+40 using disposable Teflon hand bailers. Where mutiphasic contents were identified both materials were included in sample collection containers